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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/600,967	06/20/2003	Hiroataka Hara	00650-0741	6569

32116 7590 09/22/2005

WOOD, PHILLIPS, KATZ, CLARK & MORTIMER  
500 W. MADISON STREET  
SUITE 3800  
CHICAGO, IL 60661

EXAMINER

YAO, SAMCHUAN CUA

ART UNIT	PAPER NUMBER
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1733

DATE MAILED: 09/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/600,967

Applicant(s)

HARA ET AL.

Examiner

Sam Chuan C. Yao

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 18-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9, 14, 16 and 17 is/are rejected.
- 7) ☒ Claim(s) 10-13 and 15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Election/Restrictions***

1. Applicant's election of Group I (claims 1-18) in the reply filed on 07-21-05 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). During a telephone interview, Examiner Charles informed Counsel that, product by process claim 18 properly belongs to Group II. Hence, this claim would be withdrawn from consideration. Counsel agreed.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
3. Claims 1-9, 14, and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Admitted Prior Art (APA) directed to JP 2708717 in view of Schanin et al (US 5,176,583).
4. With respect to claims 1-2, 14 and 16-17, the APA discloses a process of making a V-ribbed belt. The process involves forming a ribbed compression rubber layer by extruding the compression rubber layer in a length-wise direction. The ribbed compression rubber is laminated and vulcanized in a molding die to a cushion rubber layer with a load carrying layer embedded in the cushion rubber layer

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(numbered paragraph 9). The process of the APA differs from claim 1 in that, the APA does not teach forming a ribbed compression rubber layer by applying a radial force to a compression rubber sleeve in a molding die. However, it would have been obvious in the art to apply a heat-molding operation (i.e. apply radial force to a compression rubber sleeve in a molding die) instead of using an extrusion operation in forming a ribbed compression rubber layer in the process of the APA, because: a) it is well known in the art of making V-shaped drive belt to interchangeably use an extrusion operation or a molding operation to preform *"all belt components: the compression member 2, the load-carrying member 6 and the (optional) tension member 12"* prior to bonding the various members together (col. 4 line 45 to col. 5 line 39); and b) applying a radial force to a rubber sleeve in a heated molding die by an outward expansion of a bladder to form a ribbed drive belt is conventional in the art of making V-ribbed belt as exemplified in the teachings of Wood (abstract; figures 8A-8B).

With respect to claim 3, while it would appear that, a ribbed compression layer and a cushion layer are initially laminated prior to being molded together, it would have been obvious in the art to simultaneously laminate and mold (i.e. apply radial force) the above two layers together, as such is taken to be well within the purview of choice in the art.

With respect to claim 4, see claim 2 on page 1 of a computer English translation of JP '717.

With respect to claims 5-6, see figure 1 of JP '717, particularly 5a, 5b.

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With respect to claims 7, the limitation in this claim reads on forming a compression rubber layer and a cushion rubber layer together using a conventional pair of molding assemblies as exemplified in the teachings of Wood (figures 9-10B), where members of a drive belt are pressed against each other using an inner outwardly expanding molding assemblies and a outer corrugated molding assembly, the outer and inner assemblies are concentric to each other.

With respect to claim 8, as noted above, it is old in the art to preform various members of a drive belt. A preference of whether to use a single molding assembly or multiple molding assemblies to form each of the various members is taken to be well within the purview of choice in the art. For this reason, this claim would have been obvious in the art.

***Allowable Subject Matter***

5. Claims 10-13 and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
6. The following is a statement of reasons for the indication of allowable subject matter: in the context of the claims taken as a whole, there is no suggestion in the art to use 1<sup>st</sup> and 2<sup>nd</sup> mold assemblies for forming cog teeth or ribs to a 1<sup>st</sup> sleeve component (i.e. limitation in claim 9), where a 2<sup>nd</sup> mold assembly being separate from a 1<sup>st</sup> mold assembly is used to form a 2<sup>nd</sup> belt sleeve (i.e. limitation in claim 8).

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***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sam Chuan C. Yao whose telephone number is (571) 272-1224. The examiner can normally be reached on Monday-Friday with second Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver can be reached on (571) 272-1156. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Sam Chuan C. Yao  
Primary Examiner  
Art Unit 1733

Scy  
09-18-05